

We Claim:

1. A method of web-interface mediated testing of a software application comprising:
  - (a) selecting a test case for execution on a host machine using a web-interface provided by an application server, wherein said test case comprises one or more test steps;
  - (b) selecting the host machine on which to run said test case using said web-interface provided by said application server, said host machine comprising an automation tool and a whole or partial copy of the computer readable code of the software being tested;
  - (c) encoding a test case file comprising the one or more test steps of said selected test case and the name of an automation tool GUI environment file;
  - (d) transmitting said test case file from said application server to said selected host machine;
  - (e) receiving said test case file and decoding the contents thereof; wherein said decoding comprises generating a test script by parsing test step syntax recognized by said automation tool from said test case file and receiving a copy of the automation tool GUI environment file;
  - (f) loading said test script, said automation tool GUI environment file, and said whole or partial copy of the computer readable code of the software being tested into said automation tool and executing said loaded test script using said automation tool thereby testing a software application.
2. The method according to claim 1 further comprising transmitting status information about said test case from said host machine to said application server and providing said status information to a user by way of said web interface.
3. The method according to claim 2 further comprising transmitting status information about one or more test steps of said test case from said host machine

to said application server and providing said status information to a user by way of said web interface.

4. The method according to claim 1 wherein said test case file is selected from a flat file, markup language encoded file, XML file, HTML file, ASCII file,  
5 or XHTML file.
5. The method according to claim 1 further comprising scheduling the execution of said selected test case on said selected host machine, wherein said scheduling comprises a time and a date for executing said selected test case on said selected host machine.
- 10 6. The method according to claim 1 further comprising a querying of the application server by the host machine whether a test case has been assigned to the host machine.
7. The method according to claim 6 further comprising said host machine requesting from the application server the encoding and transmitting of a test case  
15 file based on the test case assigned to said host machine.
8. The method according to claim 1 further comprising authoring a test case using said web interface wherein said authoring comprises adding steps or modifying existing steps by selecting from a plurality of GUI objects.
9. The method according to claim 8 further comprising modifying an action,  
20 procedure, or expected result corresponding to a selected GUI object.
10. The method according to claim 8 wherein said GUI objects are preset GUI objects.
11. The method according to claim 8 wherein said GUI objects are manually created and an action, procedure, or expected result corresponding to said  
25 manually created GUI object is entered using automation tool recognized syntax.
12. A computer system for web-interactive software testing comprising:

- 5 (a) an application server suitable as a web server operatively coupled to a database wherein said application server comprises a computer readable storage medium having computer readable code means for providing a web interface to one or more users, computer readable code means for populating said web-interface with data gathered from said database, and computer readable code means for populating said web-interface with data received from one or more host machines;
- 10 (b) one or more user machines in communication with said application server suitable, said user machines comprising computer readable storage media including computer readable code means for interacting with the web interface provided by said application server; and
- 15 (c) one or more host machines in communication with said application server, said one or more host machines comprising computer readable storage media including an automation tool, a full or partial copy of the computer readable program code of a software application to be tested, and computer readable code means for loading a test script, an automation tool GUI environment file, and the computer readable program code of said software application into said automation tool and commanding the execution of said test script by said automation tool.
- 20 13. The computer system according to claim 12 wherein said application server further comprises:

  - (a) computer readable program code means for enabling a user to select of a test case;
  - 25 (b) computer readable program code means for enabling a user to select a host machine on which to execute said selected test case;
  - (c) computer readable program code means for encoding a test case file wherein said test case file comprises one or more of test steps of said selected test case and the name of an automation tool GUI environment file;

(d) computer readable program code means for transmitting said encoded test case file to a host machine.

14. The computer system according to claim 13 wherein said encoded test case file is selected from a flat file, markup language encoded file, XML file, HTML  
5 file, ASCII file, or XHTML file.

15. The computer system according to claim 13 wherein the application server further comprises computer readable program code means for scheduling the execution of said selected test case on said selected host machine, wherein said scheduling comprises a time and a date for executing said selected test case on  
10 said selected host machine.

16. The computer system according to claim 13 wherein the application server further comprises computer readable code means for enabling a user to author of a test case using said web interface wherein said user adds steps or modifies existing steps by selecting from a plurality of GUI objects.

15 17. The computer system according to claim 16 wherein said application server further comprises computer readable code means for enabling a user to modify an action, procedure, or expected result corresponding to a selected GUI object.

18. The computer system according to claim 16 wherein said GUI objects are  
20 preset GUI objects.

19. The computer system according to claim 12 wherein said one or more host machines further comprise:

(a) computer readable program code means for querying said application server whether a test case has been scheduled for execution by said host  
25 machine;

(b) computer readable program code means for requesting the encoding of and transmission of a test case file by the application server;

- (c) computer readable program code means for receiving said test case file;
  - (d) computer readable program code means for decoding said test case file,  
said decoding comprising generating a test script by parsing automation  
tool recognized syntax from said test case file, and resolving the name  
5 of an automation tool GUI environment file from said test case file;
  - (e) computer readable program code means for requesting the transmission  
of and receiving said automation tool GUI environment file from the  
application server;
  - (f) computer readable program code means for updating the application  
10 server with the status of a test case assigned to be executed on said host  
machine or the status of the one or more test steps included in said test  
case.
20. A method for managing software testing requirements comprising:
- (a) providing a web interface wherein one or more users can create one or  
15 more requirements folders using said web interface and saving said one  
or more requirements folders in a relational database coupled to an  
application server that provides said web interface,
  - (b) providing a web interface wherein one or more users can create one or  
more test cases using a web interactive authoring tool and saving said  
20 one or more test cases in a relational database coupled to an application  
server that provides said web interface, and
  - (c) providing a web interface wherein one or more users can sort said one  
or more test cases within said one or more requirements folders.
21. The method according to claim 20 further comprising providing a web  
25 interface wherein one or more users can create one or more sub-requirements  
folders using said web interface and saving said one or more sub-requirements  
folders in said one or more requirements folders; wherein both said requirements

and said sub-requirements folders are saved in a relational database coupled to said application server that provides said web interface.

22. The computer system according to claim 12 wherein said application server further comprises:

- 5 (a) computer readable program code means for providing a web interface wherein one or more users can create one or more requirements folders using said web interface and saving said one or more requirements folders in a relational database coupled to an application server that provides said web interface;
- 10 (b) computer readable program code means for providing a web-interactive interface wherein one or more users can create one or more test cases using a web-interactive authoring tool and saving said one or more test cases in a relational database coupled to said application server that provides said web interface; and
- 15 (c) computer readable program code means for providing a web interface wherein one or more users can sort said one or more test cases within said one or more requirements folders.